

Evaluation of Design Education for Practice in Online Mode of Teaching

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Abstract- The recent online mode of learning has raised a question mark on our teaching pedagogy of design. The sudden shift in the mode of learning from physical to digital, due to the Corona outbreak is unexpected. Although, design educators have been using ICT (Information and Communications Technology) in the teaching-learning process since the last couple of years yet the online mode of training is new to most of all the teachers and students.

The current Corona pandemic has struck us all very deeply and has brought the entire world in a state of shock, fear, and uncertainty, yet there is no need to lose hope and surrender. Design and designers have survived tough times in the past like demonetization and recession. The core nature of design is to solve a problem with a systematic method. This situation is nothing but can be seen as a new design challenge, and design educators and designers all around the globe will come up with a workable and innovative solution that may not be heard of, seen of, or thought of.

The paper aims to discuss the positive efforts of design fraternity in bringing solutions through their creative ways and a fighting zeal to overcome the pandemic. To reach the purpose of the study, the qualitative research approach has been used, in this regard. Further, a personal and universal case study has been undertaken to answer the research question.

Keywords (Design Practice, Design, Education, Design Pedagogy Corona Pandemic, Design Innovation)

Introduction

The COVID 19 virus which originated from the city of Wuhan in China has paralyzed the super power countries like US, China, United Kingdom and the whole world. The Corona Pandemic which has engulfed almost every country on the planet within just a couple of months has broken down the economy, growth, health and all the sectors of the world like never before. It has taken billions of life and is still counting. India was hit by this deadly virus in February 2020 and has suffered huge. The economy is all time low since independence with 3.1% as reported by the leading financial newspaper economic times. (Gaurav Noronha, 2020). This pandemic has affected every sector from business to working class. People are losing their jobs, shops are shut down, school, colleges, bank, offices got shut down.

The lockdown which was enforced to control the spread of corona outbreak forced educational institutions to switch to online mode of training from regular chalk-talk teaching model. From schools to colleges and universities, teachers and students were asked to engage in online learning through laptops, mobile, tab, and PC. This paper discusses the future possibilities of design practice in online mode.

Research Question

Is it feasible to practice design in online mode of education?

Literature Review

Design pedagogy differs from other streams like engineering and management. It is more about practicing the concepts in studio based classes with hands on training. This online mode of training in design education is new and seems deviating from its conceptual model. The syllabus, lesson plans and assignments which are being designed keeping the studio based classroom mode of learning, seems unfit in this zoom, Google Meet and MS Teams platforms, where the training is happening currently. The situation appears critical for the design industry and design fraternity.

But, the positive side is the training and education is still going on. Internet and Design Products (Mobiles, laptops, tabs) have made this happen and the life is still running. Even pre corona time, people are already aware about the importance of online collaboration at work places. Work from home, freelance, video calls through Skype, Whatsapp were already in practice long before in the industry. This is also the reason why the industry has not stopped completely and the production of medical essentials like masks, gloves, safety kit was made available in lockdown time. While in education, ICT (Information and Communications Technology) was introduced in schools in early 20th Century by MHRD, Govt. Of India (MHRD Govt. of India, n.d.). It became popular as E-learning and from schools to colleges it became part of the teaching pedagogy. Though ICT is about the use of technology in teaching- learning process and not about online mode of training. But teachers and students became used to technology and the internet because of ICT. This is why the education is happening when schools and colleges are closed. Although there are challenges of internet speed and availability of learning tools like laptop, PC. Anyhow, this challenge is less prevalent in Design Education as the internet and PCs are minimum requirements to learn and practice design.

However, the sudden shift in teaching mode from classroom to online was unexpected and education system in the country was not prepared for it. It was too early for everyone to digest and adjust. So, to the rescue there comes the contribution of MOOC (Massive Open Online Course), which is pretty popular these days in education as well as in industry sector. MOOC was introduced to the world in the year 2008 but gained momentum in 2012 as an effective learning tool (Sharangpani, n.d.). India premiere institutes seven IITs and IISc Bangalore collaborated together to start NPTEL (The National Program on Technology Enhanced Learning) in the same year 2003 to begin online courses on engineering topics (A Project funded by & MHRD, Govt. of India, n.d.). In 2017, Ministry of education, Government of India under Digital India initiative launched SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) to promote self learning among students. SWAYAM has a number of courses from visual design to product design, sustainable design and are popular among the design fraternity (*About SWAYAM*, n.d.). These information establishes the fact that online education is not a new phenomenon for design educators and design students at large.

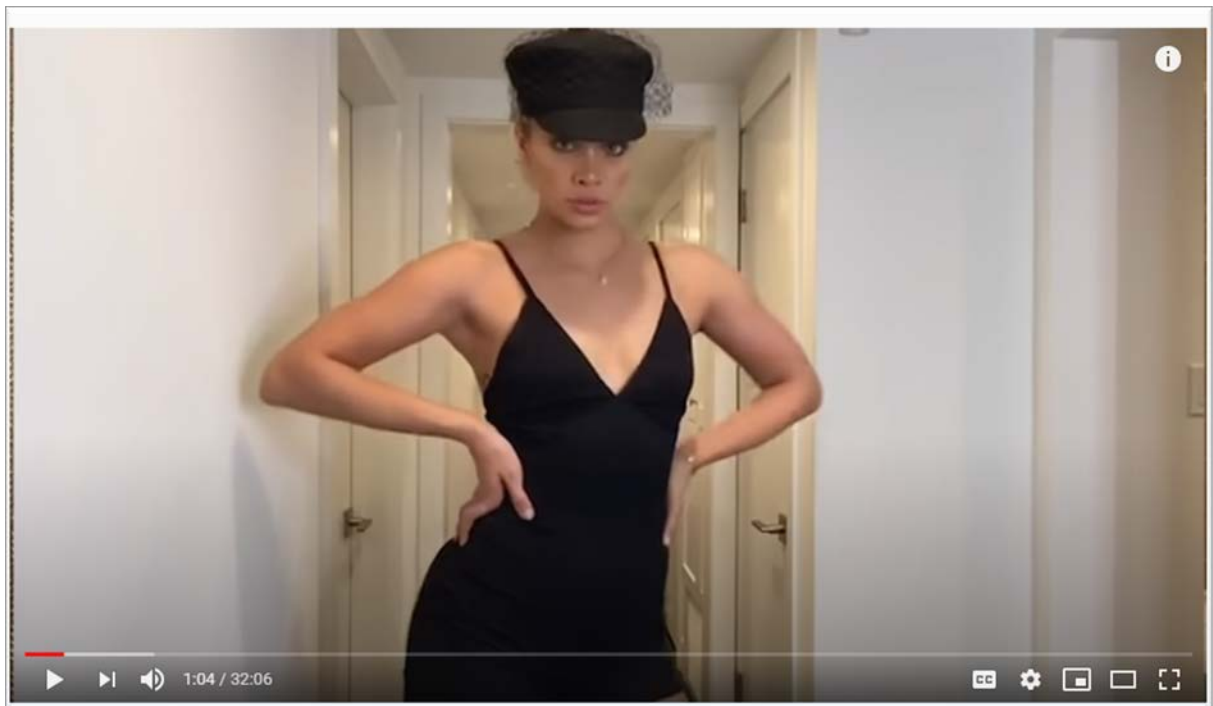
But the challenge lies in the syllabus content and assignment which were designed in the context of classroom and studio based learning environment. This is the area where needs maximum attention and is subject to modification keeping the online teaching format in mind.

Methodology

A qualitative method is undertaken to find relevant answers to the questions raised by this study. Further, contemporary design work developments in online format, information from authentic digital sites and intellectual sources like articles, journals and interviews are undertaken for qualitative analysis.

In India, design has survived recession in 2008 and demonetization in 2016. Post recession a lot of offices shut down due to the downfall in the business. The demand of co-working space came in huge demand to avoid high rent and maintenance expense. Architects and Interior designer encased the opportunity by transforming large spaces in malls, commercial complex, restaurant into a co-working space. Whereas, demonetization came as a boon to E-Commerce and digital payment business, when cash was in a crunch and people were compelled to use digital money.. Various digital platforms evolved like Paytm, Phone Pe, Google Pay, BHIM and UPI (Sanatani, 2017).

The evolving nature of design can be seen as a strong factor that practicing design in online mode does not seem impossible. There are already positive developments happening around. On May 1, 2020, world's first virtual fashion show was premiered on YouTube with over 3 Lakh views from all across the globe. Models took a a high-fashion runway show entirely from home (HARPER'S BAZAAR STAFF, 2020).



Picture 1. A model doing ramp walk from her home

https://www.youtube.com/watch?time_continue=10&v=bm8mbAPAWG0&feature=emb_log
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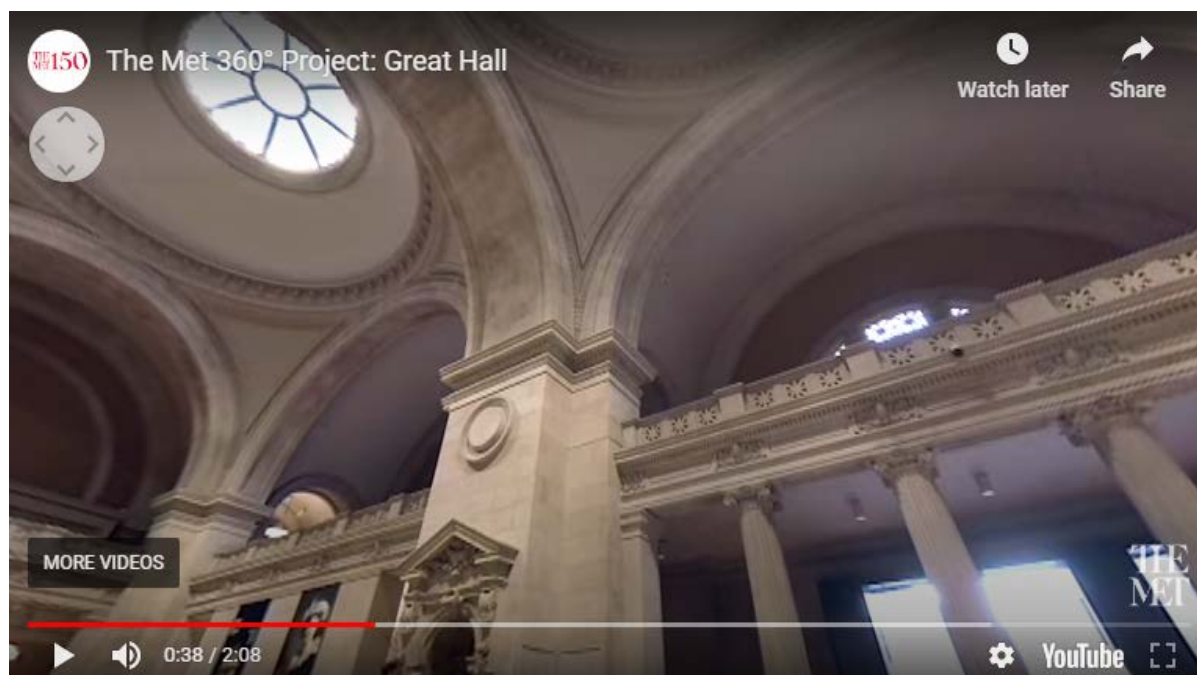
Although it was a promotional event to raise funds for COVID -19 vaccines and treatment of victims, yet it shows the world the possibility of online fashion shows in the future.

The exhibition industry came up with the idea of virtual booths and stalls with the help of AR VR technology. The leading exhibition agency FICCI has announced two upcoming Virtual Reality in September 2020 on textile and health care, . A lot of IT companies are treating this situation as an opportunity and developing a virtual platform to attract Real estate, Auto, Machinery, and other sectors (FICCI, n.d.).



Picture 2. A screenshot of FICCI Home Page
<http://www.ficci.in/exhibitions.asp>

Art exhibitions which were completely closed as of lockdown has also undergone transformation. Vulture.com, an online museum, gallery did a live art exhibition in 10th July 2020 and displayed artworks which were made interactive with the web technology. The viewer can interact with the artwork and take a closer look like in a physical state.



Picture 3- An interactive Museum walkthrough in 360 Degree
<https://www.metmuseum.org/art/online-features/met-360-project>

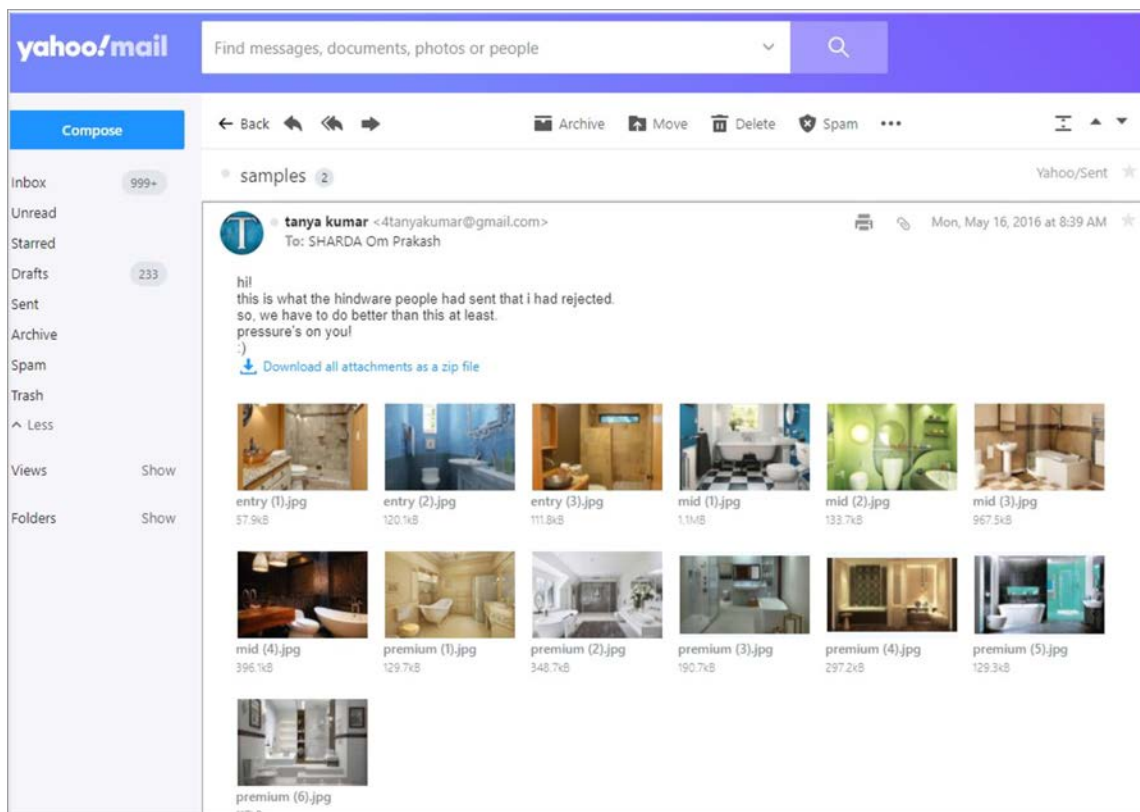
The above development round the globe can set a roadmap for Indian art industry to explore these new technologies and take the art experience to the next level.

Freelance Designers have been using various apps and data sharing platforms like We Transfer, Slack, Google Drive, One Drive, and many more, it is possible to practice design online. Google Meet, Zoom, Microsoft Teams have become proactive during lockdown times among teachers and students.

Given below, there is a freelance project discussed to strongly present the possibility of practicing design online. The project was done in the online collaboration of an interior designer and two 3D artists.

Year of Project- 2016
Name- Bathroom Theme Designs
Client- Hindware, Third Party
Website - <https://www.hindwarehomes.com/bathroom-themes.aspx>
Type- 3D Modelling and Rendering
Product – 13 Super Realistic Renders
No. of designers - 3 (one interior designer, two 3D Artist
Tools used – 3ds Max and V-ray
Duration- 30 Days
Designers - Tanya Kumar, Om Singh and Mukul Uppal

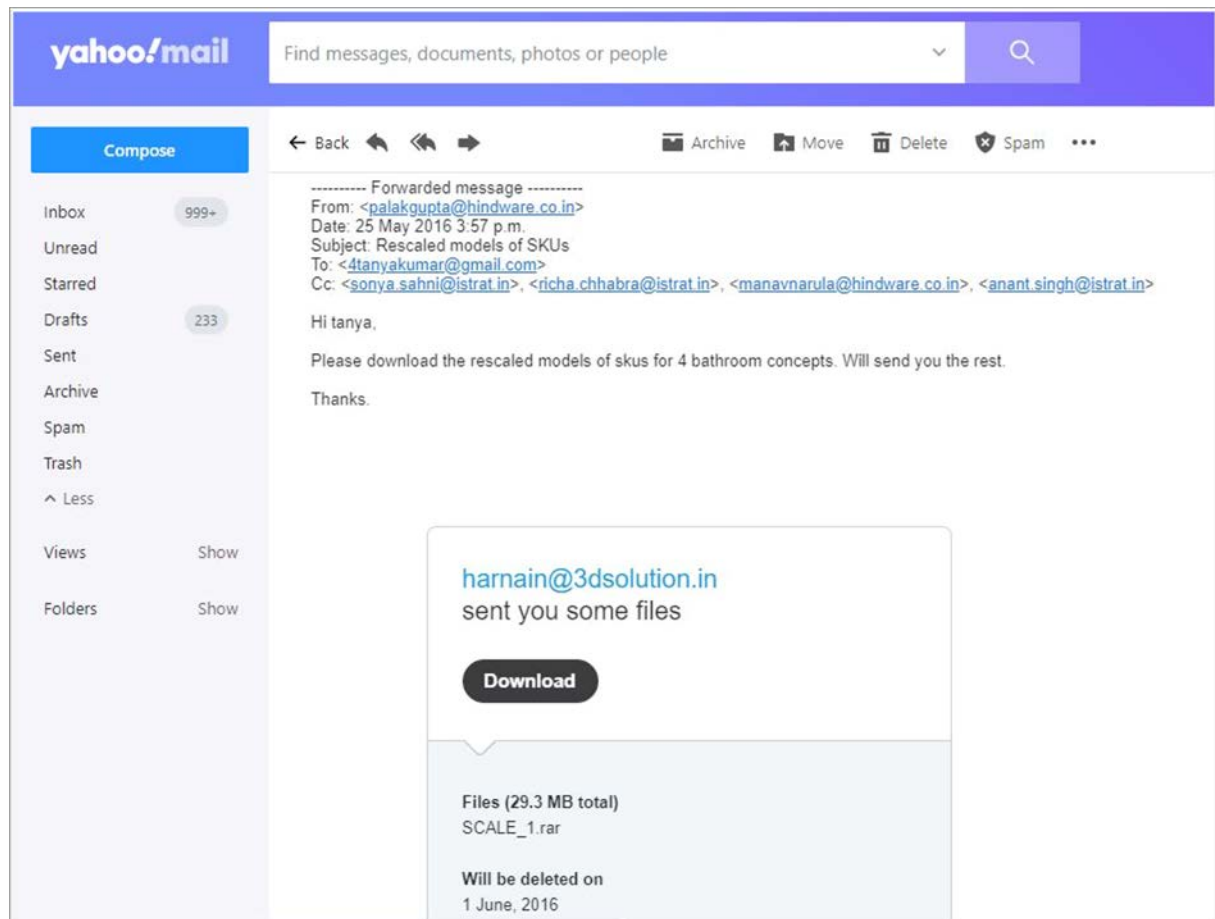
The project was completely done via email, Skype call, We Transfer and Whatsapp. Here are some screenshots taken from yahoo mail.



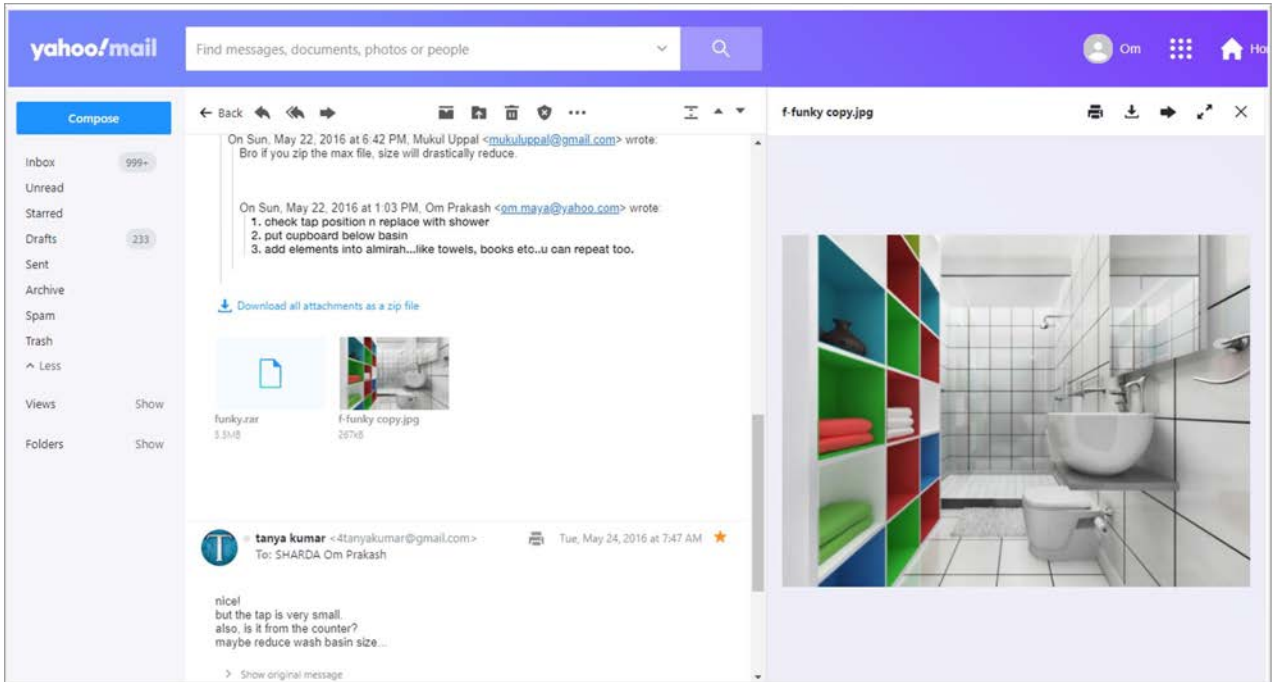
Picture 4 - Render Reference shared to Om Singh by Tanya Kumar



Picture 5- 3D Model draft render shared with Tanya Kumar



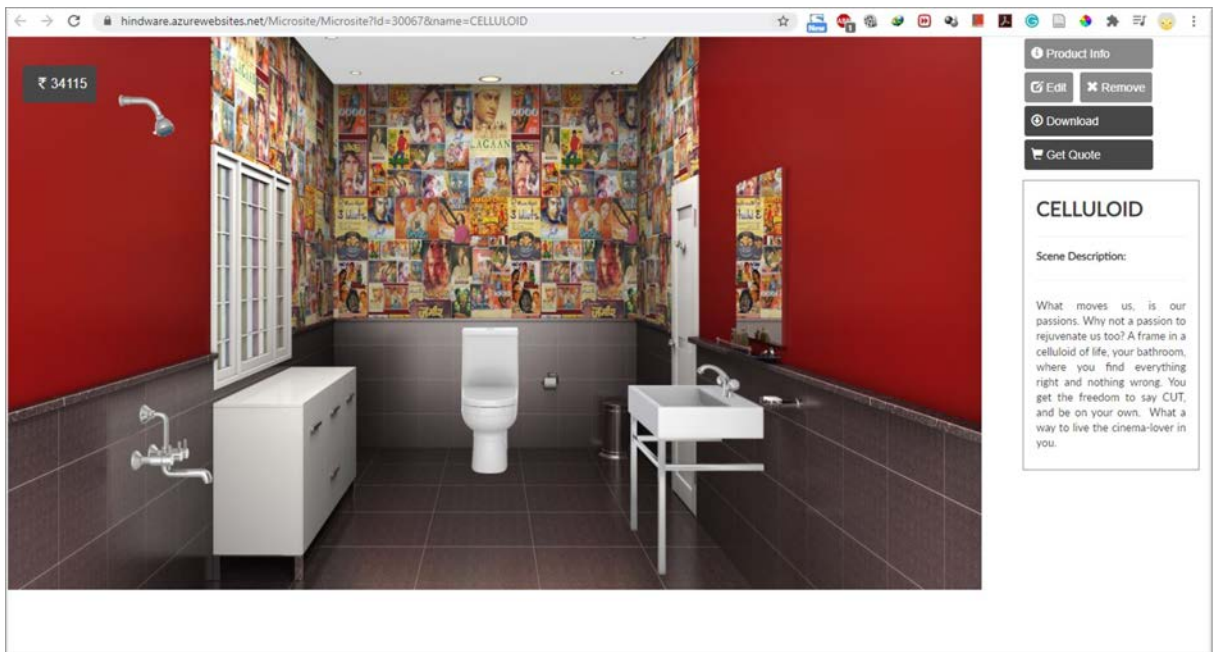
Picture 6- 3D Model file shared with the Project manager, Tanya Kumar



Picture 7- Corrections in render discussed via mail.



Picture 8 - A Render Sample



Picture 9 - Live Model from website with slight modification in 2020

<https://hindware.azurewebsites.net/Microsite/Microsite?Id=30067&name=CELLULOID>

Apart from these examples, intellectual and government is also working towards developing a new sustainable model of education post Corona Pandemic. In a recent article in Hindustan times a detailed plan of Urban design has been discussed with renovating the existing spaces of office, residential, classroom and street market keeping navigation, hygiene and social distancing of 6 feet in mind (“Imagining a Post-Pandemic City,” 2020). The proposed design is sustainable, with recycling existing furniture and other old materials to renovate the existing space. There is a detailed plan for designing classroom by smartly using outdoor spaces to avoid congestion.



Picture 10 Detailed Layout of proposed classroom

Another positive thought can be resurrected from the views expressed by Dr Anil Sahasrabudhe, chairman, AICTE (All India Council for Technical Education) in his recent interview published on 19th Aug 2020 (Pathak, 2020). He has highlighted the positive aspect

of online training as it is more transparent and will stem corruption in the education sector. The information shared online cannot be edited or deferred, which generally can be tweaked in offline mode. Dr Anil has urged the education community to take this challenge as an opportunity and change it to the advantage of students and faculty members.



Picture 11 An interview of AICTE Chairman Dr. Anil Sahasrabudhe

Findings

Based on the cases, it can be assumed that practicing design online is feasible. With the help of internet, apps and website, students can be guided by faculty members to execute the practice. The assignments have to be redesigned to meet the expectation and challenges faced in an online environment.

Online classes seem to be shorter than regular classroom lectures as it is more tiring sitting hours on Google meet, Zoom or MS Teams. This lets the faculty make the session more structured and engaging by sharing the brief earlier before the class. The students also feel responsible as they are self motivated to interact. There is a transparency in everything from content sharing to evaluating assignments. Brainstorming sessions have been replaced by peer to peer learning, where students are able to view each other's project and rectify their own mistakes. Lack of direct connect with the faculty, students are also becoming independent and thus self learning is promoted. Online education also cuts the travel time and expense of travel, which can also be considered as a positive point.

However, there are a couple of challenges in practicing design online as the lack of critical evaluation, especially in the studio based assignments where the teacher or craftsmen needs to physically make the corrections in the ongoing project. The other challenges are slow internet, technical glitches during sessions and hard disk crashes, and health issues.

To overcome these challenges, the recent development of Augmented Reality technology in education brings a hope to make the learning more engaging, where the product model interacts with the real world environment and gives learners a real feel (Jain, 2018).



Role of AR/VR in education system: How technology is shaping India's learning space.

Picture 12 Children learning using Augmented Reality Technology

<https://www.indiatoday.in/education-today/featurephilia/story/role-of-augmented-virtual-reality-in-education-1417739-2018-12-26>

Conclusion

Practicing Design with online mode of education is although challenging, but not impossible. There seems a lot of positive sides in terms of cost and time saving, which is considered as a major factor while executing a design project.

The conditions being faced to the world and everyone is quite new and the strategies to fight this pandemic is in testing phase. So, the current online design education is also in its infancy stages and there is every possibility of discovering a defined system to practice design online.

Nevertheless, this is also a fact that, face to face interaction and classroom teaching has been a backbone of our education system. So, the blended mode of learning would be more effective keeping in mind the productivity and difference in the cognitive ability of individual students. By the way, the future technology and industry demands will guide in taking the right approach for practicing design online effectively. It will be too early to come to a particular conclusion at this stage.

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Author

Om Singh is a digital artist fully equipped with all multimedia tools and production pipeline. He brings 12 yrs of diverse experience gained from the production and academics. Currently pursuing PhD in Communication Design, he holds graduation and post graduation degree in Multimedia. The urge to learn and explore other part of design discipline he did a course in Interaction Design at COURSERA from University of California . He continued to practice his production work as a Design Consultant and have been delivering a list of UI, Motion Graphics and Branding related works.

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